

About the Instructors

Dr. Greg Harrell, University of Tennessee

Dr. Harrell is a Senior Research Associate for the Energy, Environment and Resources Center of the University of Tennessee. His expertise in industrial systems includes boilers, steam systems, combined heat and power systems, compressed air systems, and refrigeration systems. For several years Dr. Harrell has supported the BestPractices Steam program of the U.S. Department of Energy. From 1987 to 1993 Dr. Harrell worked as a design engineer and utilities process engineer for BASF Corporation at a large industrial complex. He was responsible for the engineering and technical activities of an entire utilities department that included steam production, electric power generation, compressed air systems, water filtration facilities and a wastewater treatment plant. Dr. Harrell completed his doctoral degree at Virginia Tech with a focus on applied thermodynamics.

Robert M. Erdmann, AHM Associates

Mr. Erdmann has been employed with AHM Associates since 1989. His duties include all aspects of sales including contract negotiation, sales presentations, quotation preparation and job site surveys for a variety of combustion boiler and power plant equipment manufacturers. From 1982 to 1989 Mr. Erdmann was employed by the Coen Company, Inc. As an application engineer, he focused on the low NO_x burner and utility markets. Mr. Erdmann's responsibilities included supervising the Steam Generation product line. Mr. Erdmann completed his Bachelor of Science in Mechanical Engineering at the University of California, Berkeley.



A Training Workshop for Plant Utility Managers and Operators



Take advantage of this special opportunity

Come a day early to take advantage of Pacific Gas and Electric Company's Boilers Course on November 4, 2002. This course covers the selection and operation of energy-efficient boilers and water heaters of all sizes. We will discuss the importance of the purchase decision for new equipment, design factors that affect system efficiency and the cost effectiveness of implementing and using efficient operations. We also provide information on combustion control for emissions. Information is available on the PG&E website, www.pge.com



*Pacific Gas and
Electric Company*



Stay Competitive by Maximizing the Efficiency and Productivity of Your Steam System

What Do You Need to Know about Low NOx and Ultra Low NOx Burners?

This class explores low NOx burner technology options, operational flexibility, system performance, boiler adaptation and strategies to achieve low emissions, including an update on California air regulations.

How to Conduct an Efficiency Assessment of Your Steam System

What should operators routinely measure to make sure their boiler and steam distribution and recovery systems are running efficiently? What steam systems data should plant utility supervisors and managers collect, how do you interpret it, and what efficiency options will it tell you to implement?

What to Expect

- Overview of low NOx burner technology options and operational flexibility
- Update on California air regulations
- Profiling your steam system to select win-win efficiency projects
- Free U.S. Department of Energy publications and software, including:
 - *Steam System Survey Guide*
 - *Guide to Low-Emission Boiler and Combustion Equipment Selection*
 - *Improving Steam System Performance, a Sourcebook for Industry*
 - *Decision Tools Software* (Steam System Scoping Tool, Steam System Assessment Tool, 3E Plus Insulation Assessment Tool)

For more information, see the Department of Energy's BestPractices Steam website at: www.oit.doe.gov/bestpractices/steam.

Industrial Steam Plant Efficiency and Emissions Workshop

Date: November 5, 2002
Time: 8:00 a.m. - 4:30 p.m.
Cost: FREE
Location: Pacific Gas and Electric Company
Energy Training Center
1129 Enterprise Street
Stockton, CA 95204

Reserve your space today by calling (209) 932-2500 or toll-free (800) 244-9912 and ask for Myra. To reserve your space by e-mail, send your request to MJFI@PGE.com

Directions:

The Energy Training Center is located just off West Lane south of March Lane and north of Alpine Street.

From Interstate 5,
take the March Lane exit

From 99,
take the Hammer Lane exit

From 4,
take the El Dorado/
Downtown exit

